

REMARKS

Applicants have received the Office Action dated January 28, 2008, in which the Examiner rejected claims 1-18 and 27-29 as allegedly obvious over Satoh (U.S. Pat. No. 5,119,363, hereinafter "Satoh") in view of Kondo (U.S. Pat. No. 6,600,716, hereinafter "Kondo").

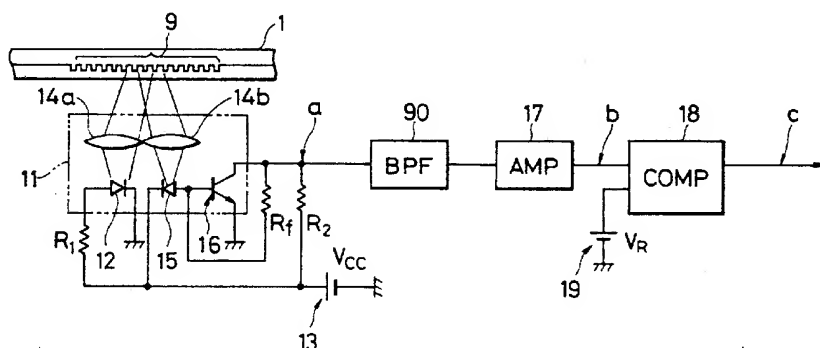
With this Response, Applicants present new claims 30-32. Reconsideration is respectfully requested.

I. ART-BASED REJECTIONS

A. Claim 1

Claim 1 stands rejected as allegedly obvious over Satoh and Kondo.

Satoh is directed to optical disks having an index mark. (Satoh Title). In particular, Satoh discloses a system having an index mark 9 that is used to identify a point on the disk 1 as the starting point of rotation such that features of the disk (*e.g.*, the address region) may be easily identified during rotation. (Satoh Col. 4, lines 15-21). In the Satoh system, within the data or track region 7, data are written in the grooves of "guide tracks" 2. (Satoh Col. 3, line 67 – Col. 4, line 3; Figures 1 and 2). The index mark 9 of Satoh is created as an arcuate section of guide tracks, or as an arcuate section of pits of repetitive period. (Satoh Col. 4, lines 42-51; Figure 5A and 5B). Satoh discusses reading the index mark 9 in reference to Figure 6, reproduced immediately below.



In particular, Satoh indicates that because the datum represented by index mark 9 is a plurality of guide tracks or pits, rather than bits encoded in the bottom

of guide track, the light used to read the index mark 9 need not be light from a laser (*i.e.*, need not be coherent, or stated conversely may be incoherent).

The rotation index mark may be formed in a track ... and may be detected optically **without using a laser light beam**.

(Sato Abstract).

Since the index mark 9 is formed by making the surface of the optical disk 1 coarse in the order of 1 micrometer in the same manner as the dimension of the guide tracks, the index mark 9 can be readily detected by an incoherent light source, such as a light-emitting diode, without using a laser light source.

(Sato Col. 5, lines 61-65). However, the coherency or incoherency of the light source used does not alter the fact that the index mark 9 is still very small, on the order of 1 micrometer (*id.*), and Sato thus discusses focusing the incoherent light for reading of the index mark.

FIG. 6 is a block diagram of a reading circuit for detecting the index mark 9 from the optical disk 1. ... **The output light from the light-emitting element 12 is diaphragmed by a diaphragming lens 14a to produce a spot on the optical disk 1. The light is reflected at the optical disk 1 and is then condensed by a condensing lens 14b having a limited aperture so as to image a spot on a junction of the light-receiving element 15.**

(Sato Col. 5, lines 1-16 (emphasis added)).¹

Claim 1, by contrast, specifically recites, "at least one optically detectable mark on the disk-like body, the at least one optically detectable mark being readable by a plurality of different optical systems configured for different types of optical storage media." Applicants respectfully submit that the Sato and Kondo fail to teach or suggest such a system. The Office action states, "Sato discloses where the marks can be read by an unfocused light source... ." (Office action of

¹ It is acknowledged that Sato's Figure 12 does not show the lenses 14; however, the focus of Figure 12 is a circuit to generate the timing diagrams of Figures 13A-I. (Sato Col. 9, line 19 – Col. 10, line 2). The index marks 46 of the embodiments of Figure 12 are merely a plurality of the index marks 9 discussed with respect Figure 6. "The reference 46 is a rotation index mark corresponding to the rotation index marks 9 and 20 of the previous embodiments." (Sato Col. 8, line 68 – Col. 9, line 2). Thus, Applicants submit that while reading the index marks 46 may be accomplished with non-laser light (*i.e.*, incoherent light), reading the index mark still requires the lenses discussed with respect to Figure 6.

January 28, 2008, Page 2, last paragraph). Applicants respectfully traverse. Satoh discusses reading the index marks with incoherent light rather than laser light, but expressly teaches that (even with incoherent light) focusing is required. Stated otherwise, coherency is related to the phase relationship of light waves from a source, not the presence or absence focusing. Thus, even if the teachings of Kondo are precisely as the Office action suggests (which Applicants do not admit), Satoh and Kondo still fail to teach the claim limitations. For this reason alone the rejection should be withdrawn and the claim set for issue.

Moreover, the Office action states "Satoh ... fails to disclose marks that are readable by different optical systems... ." (*Id.*). Applicants agree. The Office action then attempts to rely on Kondo's Col. 18, lines 24-30 to cover the shortcoming of Satoh. The section relied upon is reproduced immediately below.

An environmental load information is recorded as a linear two-dimensional bar code. An optical head or a CCD can read out the two-dimensional bar code. Particularly, the bar code is linear, so that a bar code reader can read out the bar code without rotating the optical disk 900. Accordingly, the optical disk 900 is convenient for a treater of recycling or disposing.

(Kondo Col. 18, lines 24-30). This portion of Kondo expressly teaches that reading of the bar code is without rotating the optical disk.

The Manual of Patent Examining Procedures (MPEP) provides the following guidance regarding considering references together when formulation rejections.

**THE PROPOSED MODIFICATION CANNOT CHANGE THE
PRINCIPLE OF OPERATION OF A REFERENCE**

If the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.

(MPEP 8th Ed., Rev. 6, September 2007, § 2143.01(VI), p. 2100-141 (emphasis original)). Applicants respectfully submit that considering Satoh and Kondo together is improper. Satoh expressly teaches the index marks 9 indicate particular rotational positions on the disk, and that the disk is rotated to read index

marks 9. The portions of Kondo relied upon by the Office action expressly teaches the opposite, that the disk is not rotated to read the two-dimensional bar code. If the bar code of Kondo is used as the index mark 9 of Satoh, this changes the express principle of operation of Kondo. On the other hand, if Satoh's index marks replace Kondo's two-dimensional bar code, this again changes the express teaching of Kondo regarding non-rotational reading. Thus, considering Satoh with Kondo is improper

Based on the foregoing, Applicants respectfully submit that claim 1, and all claims which depend from claim 1 (claims 2-11), should be allowed.

B. Claim 12

Claim 12 stands rejected as allegedly obvious over Satoh and Kondo.

Claim 12 specifically recites, "reading, from the optical storage medium using an optical system, at least one optically detectable mark that is readable by a plurality of different optical systems configured for different types of optical storage media." Applicants respectfully submit that the Satoh and Kondo fail to teach or suggest such a system. The Office action states, "Satoh discloses where the marks can be read by an unfocused light source... ." (Office action of January 28, 2008, Page 5, first paragraph). Applicants respectfully traverse. Satoh discusses reading the index marks with incoherent light rather than laser light, but expressly teaches that (even with incoherent light) focusing is required. Stated otherwise, coherency is related to the phase relationship of light waves from a source, not the presence or absence focusing. Thus, even if the teachings of Kondo are precisely as the Office action suggests (which Applicants do not admit), Satoh and Kondo still fail to teach the claim limitations. For this reason alone the rejection should be withdrawn and the claim set for issue.

Moreover, the Office action states "Satoh ... fails to disclose marks that are readable by different optical systems... ." (*Id.*). Applicants agree. The Office then relies on Kondo's Col. 18, lines 24-30. The portion of Kondo relied upon by the Office action expressly teaches that reading of the bar code is without rotating the optical disk. The MPEP indicates it is improper to consider references together when the principle of operation of either reference is changed. (MPEP

8th Ed., Rev. 6, September 2007, § 2143.01(VI), p. 2100-141). Applicants respectfully submit that considering Satoh and Kondo together is improper. Satoh expressly teaches the index marks 9 indicate particular rotational positions on the disk, and that the disk is rotated to read index marks 9. The portions of Kondo relied upon by the Office action expressly teaches the opposite, that the disk is not rotated to read the two-dimensional bar code. If the bar code of Kondo is used as the index mark 9 of Satoh, such changes the express principle of operation of Kondo. On the other hand, if Satoh's index marks replace Kondo's two-dimensional bar code, this again changes the express teaching of Kondo regarding non-rotational reading.

Based on the foregoing, Applicants respectfully submit that claim 12, and all claims which depend from claim 12 (claims 13-18), should be allowed.

C. Claim 27

Claim 27 stands rejected as allegedly obvious over Satoh and Kondo.

Claim 27 specifically recites, "at least one optically detectable mark that is readable by a plurality of different optical systems configured for different types of optical storage media." Applicants respectfully submit that the Satoh and Kondo fail to teach or suggest such a system. The Office action states, "Satoh discloses where the marks can be read by an unfocused light source... ." (Office action of January 28, 2008, Page 6, last paragraph). Applicants respectfully traverse. Satoh discusses reading the index marks with incoherent light rather than laser light, but expressly teaches that (even with incoherent light) focusing is required. Stated otherwise, coherency is related to the phase relationship of light waves from a source, not the presence or absence focusing. Thus, even if the teachings of Kondo are precisely as the Office action suggests (which Applicants do not admit), Satoh and Kondo still fail to teach the claim limitations. For this reason alone the rejection should be withdrawn and the claim set for issue.

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the optical disk. The MPEP indicates it is improper to consider references together when the principle of operation of either reference is changed. (MPEP 8th Ed., Rev. 6, September 2007, § 2143.01(VI), p. 2100-141). Applicants respectfully submit that considering Satoh and Kondo together is improper. Satoh expressly teaches the index marks 9 indicate particular rotational positions on the disk, and that the disk is rotated to read index marks 9. The portions of Kondo relied upon by the Office action expressly teaches the opposite, that the disk is not rotated to read the two-dimensional bar code. If the bar code of Kondo is used as the index mark 9 of Satoh, such changes the express principle of operation of Kondo. On the other hand, if Satoh's index marks replace Kondo's two-dimensional bar code, this again changes the express teaching of Kondo regarding non-rotational reading.

Based on the foregoing, Applicants respectfully submit that claim 27, and claim 28 which depends from claim 27, should be allowed.

D. Claim 29

Claim 29 stands rejected as allegedly obvious over Satoh and Kondo.

Claim 29 specifically recites, "means for reading, from an optical storage medium, at least one optically detectable mark that is readable by a plurality of different optical systems configured for different types of optical storage media." Applicants respectfully submit that the Satoh and Kondo fail to teach or suggest such a system. The Office action states, "Satoh discloses where the marks can be read by an unfocused light source... ." (Office action of January 28, 2008, Page 6, last paragraph). Applicants respectfully traverse. Satoh discusses reading the index marks with incoherent light rather than laser light, but expressly teaches that (even with incoherent light) focusing is required. Stated otherwise, coherency is related to the phase relationship of light waves from a source, not the presence or absence focusing. Thus, even if the teachings of Kondo are precisely as the Office action suggests (which Applicants do not admit), Satoh and Kondo still fail to teach the claim limitations. For this reason alone the rejection should be withdrawn and the claim set for issue.

Moreover, the Office action states “Satoh ... fails to disclose marks that are readable by different optical systems... .” (*Id.*). Applicants agree. The Office then relies on Kondo’s Col. 18, lines 24-30. The portion of Kondo relied upon by the Office action expressly teaches that reading of the bar code is without rotating the optical disk. The MPEP indicates it is improper to consider references together when the principle of operation of either reference is changed. (MPEP 8th Ed., Rev. 6, September 2007, § 2143.01(VI), p. 2100-141). Applicants respectfully submit that considering Satoh and Kondo together is improper. Satoh expressly teaches the index marks 9 indicate particular rotational positions on the disk, and that the disk is rotated to read index marks 9. The portions of Kondo relied upon by the Office action expressly teaches the opposite, that the disk is not rotated to read the two-dimensional bar code. If the bar code of Kondo is used as the index mark 9 of Satoh, such changes the express principle of operation of Kondo. On the other hand, if Satoh’s index marks replace Kondo’s two-dimensional bar code, this again changes the express teaching of Kondo regarding non-rotational reading.

Based on the foregoing, Applicants respectfully submit that claim 29 should be allowed.

II. NEW CLAIMS

With this Response, Applicants present new claims 30-32. Applicants respectfully submit that the cited art fails to teach or suggest the limitations of claims 30-32. For example, Satoh expressly teaches a different reading system for the data area of the optical disk and the index marks 9. (*See, e.g.*, Satoh Figure 10 and related discussion). Likewise, Kondo appears to require a different reading system for the data area of the optical disk and the two dimensional bar code. Thus, Satoh and Kondo fail to even contemplate the optically detectable marks as claimed.

III. CONCLUSION

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that

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the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

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Mark E. Scott
PTO Reg. No. 43,100
CONLEY ROSE, P.C.
(512) 610-3410 (P7hone)
(512) 610-3456 (Fax)
ATTORNEY FOR APPLICANTS

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
Legal Dept., M/S 35
P.O. Box 272400
Fort Collins, CO 80527-2400